

REMARKS / ARGUMENTS

In complete response to the outstanding Official Action of April 10, 2003, on the above-identified application, reconsideration is respectfully requested.

Claims 1, 6-15, 18, 19, 21, and 24 have been amended to include the term "adsorbent" as a modifier to the term "resin". This has been done to distinguish the type of resin that is to be used in the present invention from ion-exchange type resins. Support for this can be found in the Specification on page 6, in the second sentence in the last paragraph, wherein it states:

"Resins capable of adsorbing organic impurities which cannot be removed by ion-exchange resins are particularly suited for the preconditioning method according to the invention."

Further support for this can be found in the Specification on page 11, in the last sentence of the last full paragraph, wherein it states:

"After all or substantially all the organic impurities in the solution have been adsorbed by the resin, the solution is recovered downstream from the purification column." (emphasis added)

Claim 7 has been further amended to identify that the acid solution is to be separated into two portions, with the first portion of the acid to be used during the soaking portion of the method, and the second portion of the acid to be used during the subsequent rinsing portion of the method. Support for this can be found in the Specification on page 10, in the first paragraph, wherein it states:

"Following the acid soaking step, one or more acid rinse steps are preferably performed to remove residual contaminants remaining in the resin after the acid soaking step. The acid rinsing steps can be performed by filling the container with fresh acid solution and by draining or otherwise separating the acid from the resin by

techniques known to those skilled in the art. The acid employed is preferably of the same type and the solution is typically of the same formulation as that used in the acid soaking step."

Claim Rejection Under 35 U.S.C. § 112:

Claim 7 stands rejected under 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. As applicants have amended claim 7 in order to eliminate this indefiniteness, this amendment renders such objections moot.

Claim Rejection Under 35 U.S.C. § 102:

First Claim Rejection

Claims 1-3, and 11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Harris '644. Applicants respectfully maintain that the present invention is not anticipated by Harris '644.

Applicants have amended independent claim 1, as well as dependent claim 11, to introduce the limitation that the resin to be used in the claimed invention is an adsorbent-type resin. As Harris '644 is directed toward a preparation technique useful *only* with respect to ion exchange resins, this amendment renders such rejection moot.

Harris '644 is also directed toward the manufacture, or formation, of ion exchange resins. This is in striking contrast to the invention disclosed in the present application, which pertains to preparing an *already formed* adsorbent-type resin for use in a particularly demanding, non-traditional application.

The Examiner notes that Harris '644 "discloses a method for treating an ion exchange resin by subjecting the resin to 10 cycles of alternate treatments

with hydrochloric acid, wherein the treatments with hydrochloric acid are separated by back washings with deionized water.” Applicants respectfully point out that the cited paragraphs in Harris ‘644, indicate that the above ‘method for treating an ion exchange resin’ is actually the procedure utilized to determine osmotic shock tolerance of the functionalized beads produced by the method disclosed in Harris ‘644.

One of ordinary skill in the art would find that Harris ‘644 neither teaches nor suggests the claimed invention.

Second Claim Rejection

Claims 1-3, and 11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by either Rahman et al. ‘789 or Rahman et al. ‘570. Applicants respectfully maintain that the present invention is not anticipated by either Rahman et al. ‘789 or Rahman et al. ‘570.

Rahman et al. ‘789

As previously mentioned, Applicants have amended independent claim 1, as well as dependent claim 11, to introduce the limitation that the resin to be used in the present invention is an adsorbent-type resin. As Rahman et al. ‘789 is directed toward an ion reduction technique useful only with respect to ion exchange resins, this amendment renders such rejection moot.

Rahman et al. ‘789 is also directed toward the manufacture, or production, of semiconductor devices using anti-reflective coatings. The ion exchange resins are used to produce a product stream that is very low in metal ions. This is in contrast to the invention disclosed in the present application, which pertains to preparing an adsorbant-type resin for use in a particularly demanding, non-traditional application.

The acid treatment in Rahman et al. '789 would typically be referred to as resin 'regeneration' by one of ordinary skill in the art. In Rahman et al. '789 they are essentially removing metal ions on the exchange media and replacing them with H^+ ions. The present invention relates to the removal of metals from the resin, so that the resin can then be used to safely remove TOC from a product stream, *before* this product stream is sent to the ion-exchange columns.

One of ordinary skill in the art would find that Rahman et al. '789 neither teaches nor suggests the invention in the present application.

Rahman et al. '570

As previously mentioned, Applicants have amended independent claim 1, as well as dependent claim 11, to introduce the limitation that the resin to be used in the present invention is an adsorbent-type resin. As Rahman et al. '570 is directed toward an ion reduction technique useful only with respect to ion exchange resins, this amendment renders such rejection moot.

Rahman et al. '570 is also directed toward the manufacture, or production, of photoresist materials. Again, the ion exchange resins are used to produce a product stream that is very low in metal ions. As discussed above, this is a process that one of ordinary skill in the art would characterize as a 'regeneration' of the ion-exchange resin. And again, this is in contrast to the invention disclosed in the present application, which pertains to preparing an adsorbant-type resin for use in a particularly demanding, non-traditional application.

One of ordinary skill in the art would find that Rahman et al. '570 neither teaches nor suggests the invention in the present application.

Claim Rejection Under 35 U.S.C. § 103:

First Claim Rejection

Claims 4-10, and 12-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Harris '644. Applicants respectfully contend that the present invention is not unpatentable over Harris '644.

As previously mentioned, Applicants have amended independent claim 1, as well as claims 6-10, and 12-14 to include the limitation that the resin to be used in the present invention is an adsorbent-type resin. Since the Examiner explicitly noted that "it would be prima facie obvious to employ any known or conventional *ion exchange resin* in the process, since Harris is directed broadly to treating any *ion exchange resin*, ..." (emphasis added), this amendment renders such objections moot.

Second Claim Rejection

Claims 3-10, and 12-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over either Rahman et al. '789 or Rahman et al. '570. Applicants respectfully contend that the present invention is not unpatentable over either Rahman et al. '789 or Rahman et al. '570.

As previously mentioned, Applicants have amended independent claim 1, as well as claims 6-10, and 12-14 to include the limitation that the resin to be used in the present invention is an adsorbent-type resin. Since the Examiner explicitly noted that "it would be prima facie obvious to employ a hydrochloric acid solution for treating *the ion exchange resin* in either Rahman et al. '789 or Rahman et al. '570, ..." (emphasis added), this amendment renders such objections moot.

Third Claim Rejection

Claims 15-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shiga et al. '166 or Saito et al. '109 in view of Dias et al '797. Applicants respectfully contend that the present invention is not unpatentable over Shiga et al. '166 or Saito et al. '109 in view of Dias et al '797.

Applicants have amended independent claim 15, as well as claims 18, 19, 21, and 24 to include the limitation that the resin to be used in the present invention is an adsorbent-type resin. Since the Examiner explicitly noted that "Shiga et al. and Saito et al. both disclose the purification of aqueous hydrogen peroxide solutions by passing the solutions through *ion exchange resins*" (emphasis added), and the Examiner further noted that "Dias et al. disclose(s) a method for extracting leachable contaminants from *ion exchange resins* by exposing the resins to supercritical carbon dioxide ..." (emphasis added), this amendment renders such objections moot.

CONCLUSION

In view of the current amendments, the present application now stands in condition for allowance. Early notice to this effect is earnestly solicited.

Should the Examiner believe that a telephone call would expedite prosecution of the application, he is invited to call the undersigned attorney at the number listed below.

Respectfully submitted,



Linda K. Russell

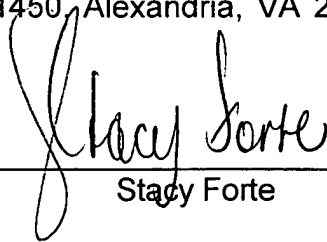
Registration No. 34,918

Date: August 11, 2003
Air Liquide
2700 Post Oak Blvd., Suite 1800
Houston, Texas 77056
(713) 624-8956 Phone – (713) 624-8950 Fax



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Stacy Forte

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